STATE OF MAINE
BOARD OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION
AUGUSTA, ME 04333

BOARD ORDER

IN THE MATTER OF

U.S. ARMY CORPS OF ENGINEERS	) NATURAL RESOURCES PROTECTION ACT
Bath, Arrowsic and Phippsburg,	) COASTAL WETLAND ALTERATION
Sagadahoc County	) WATER QUALITY CERTIFICATION
MAINTENANCE DREDGING	)
L-16281-4E-F-Z	) APPEAL
Denial of Appeals	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S.A. Sections 341-D (4) and 480-A to 480-HH, Chapters 2.24(B) and 310 of the Department of Environmental Protection's regulations, and Section 401 of the Federal Water Pollution Control Act, the Board of Environmental Protection has considered the consolidated appeals of 1) the Town of Phippsburg, the Phippsburg Shellfish Conservation Commission, the Phippsburg Land Trust, the Kennebec Estuary Land Trust, the Friends of Merrymeeting Bay, Bob Cummings, Lawrence Pye, Dean Doyle, Dot Kelly, Captain Ethan DeBery, and Laura Sewall; 2) Dot Kelly; and 3) Douglas Watts and Ed Friedman (collectively "appellants"), the material filed in support of the appeals, the response of the applicant, the comments filed by Bath Iron Works (BIW), and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROCEDURAL HISTORY:

On February 17, 2011, the U.S. ARMY CORPS OF ENGINEERS (applicant) filed a Natural Resources Protection Act (NRPA) permit application and a request for a Water Quality Certification pursuant to Section 401 of the Federal Water Pollution Control Act (also known as the Clean Water Act or CWA), to perform maintenance dredging of the federal channel of the Kennebec River in the City of Bath, the Town of Arrowsic, and the Town of Phippsburg. The applicant filed a draft Environmental Assessment (EA) that identified the resources in the project area and evaluated the potential impacts to these resources resulting from the project. Under the Lower Kennebec River Navigation Project, the Corps is authorized to maintain the federal channel in the lower Kennebec River to a depth of -27 feet Mean Lower Low Water (MLLW).

On February 24, 2011, the Department participated in a public meeting hosted by the Department of Marine Resources (DMR) in Phippsburg to receive comments on the proposed

project. The Department granted the NRPA permit and the Water Quality Certification in Order #L-16821-4E-E-N, dated April 15, 2011 (the Order under appeal).

On May 16, 2011, three appeals of the Order were filed by the above-named appellants. The appeals were consolidated. The applicant filed a response to the appeal dated June 16, 2011, and BIW filed comments on the appeal dated June 16, 2011.

In a letter, dated June 7, 2011, the State Planning Office provided its determination that, based on the Department's approval of the NRPA application and the Water Quality Certification, the applicant's project is consistent to the maximum extent possible with the enforceable policies of the Maine Coastal Program.

2. PROJECT DESRIPTION:

The project includes maintenance dredging of the Federal channel at two locations and the disposal of the dredged materials in two open water locations.

Dredging is proposed for a portion of Doubling Point Reach (in Bath and Arrowsic) between Lincoln Ledge, which is approximately 2,350 feet downstream of Bath Iron Works (BIW), to the turn at Doubling Point; this location covers an area of approximately 35 acres. To reduce the frequency of dredging at Doubling Point, the applicant proposed advanced maintenance of the channel and allowable overdepth dredging by removing the sand waves down to elevation -32 MLLW, five feet below the authorized river channel depth of -27 feet MLLW. The applicant employs advanced dredging in critical and fast shoaling areas to avoid frequent re-dredging and to ensure the reliability and least overall cost of operating and maintaining a project's federally authorized dimensions. "Allowable overdepth dredging" is a construction method used by the applicant to describe dredging done outside of the required dimensions of a dredging project. It entails removal of dredged material below the required depth of a dredging project. Allowable overdepth dredging can facilitate achieving the required depth more expeditiously and makes it more likely that there will be no material left above the required depth. For this dredging project, advanced maintenance is dredging three feet beyond the federally authorized channel depth of -27 feet MLLW, and the allowable overdepth is two feet.

The Doubling Point Reach portion of the project will generate approximately 50,000 cubic yards of fine-grained sand. Disposal of dredged material from this area will be at a delineated in-river site, the Bluff Head Disposal Area (in Bath and Arrowsic), located approximately 1.7 nautical miles downriver from the dredge site. The Department has approved the applicant's disposal of dredged material from Doubling Point at this site four times since 1989, with the last dredge done in 2003.

The project also includes maintenance dredging of the federal channel in a portion of North Sugarloaf Island Reach (in Phippsburg) to a depth of -29 feet MLLW, which includes a 2-foot allowable overdepth, covering an area of approximately two acres. This portion of the project will generate approximately 20,000 cubic yards of fine-grained sand. Disposal of dredged

material from this area will be at a nearshore disposal site located approximately 0.4 nautical miles south of Jackknife Ledge. This site has been used as a disposal site for previous dredge projects, including the last dredge done in 2003.

The route from Doubling Point to the Bluff Head Disposal Site will follow the federal channel. The route from North Sugarloaf Island to the Jackknife Ledge Disposal Site will follow the commercially travelled route used in previous dredge events.

3. STANDING:

The appellants consist of one abutter to the Bluff Head Disposal Site, residents of the local area, the Town of Phippsburg, and local citizens groups and non-government organizations advocating for protection of existing land uses and wildlife resources in the project vicinity. The Board finds that the appellants are aggrieved persons and may bring this appeal before the Board.

4. FINDINGS AND CONCLUSIONS OBJECTED TO AND BASIS FOR APPEAL:

The appellants assert that the Department erred in its findings and conclusions related to the following NRPA standards:

A. That the dredging project will not unreasonably interfere with existing scenic, aesthetic, and recreational uses pursuant to 38 M.R.S.A.§ 480-D(1),
B. That the dredging project will not unreasonably harm significant wildlife habitat, estuarine and marine fisheries, and other aquatic life pursuant to 38 M.R.S.A. § 480-D(3), and
C. That the dredging project will not violate any state water quality law, including those governing the classification of the State's waters pursuant to 38 M.R.S.A. § 480-D(5).

Appellants assert that applicant has not demonstrated that there are no practicable alternatives that would be less damaging to the environment, as set forth in the Department's *Wetlands and Waterbodies Protection Rules*, Chapter 310(5)(A).

Finally, appellants assert that because the proposed discharge (disposal) of dredged material will not comply with the applicable state water quality standards, the Department erroneously issued a Water Quality Certification.

5. REMEDY REQUESTED:

The appellants request that the Board reverse the Order, affirm the Order with conditions limiting the scope of work and requiring monitoring of water quality impacts, or remand the Order back to the Department for further analysis.

6. DISCUSSION AND RESPONSE TO APPEAL:

A. EXISTING USES STANDARD:

The appellants contest the finding that the applicant demonstrated that the dredging project will not unreasonably interfere with existing scenic, aesthetic, or recreational uses pursuant to 38 M.R.S.A § 480-D(1). The appellants contend that 24-hour operations will result in visual impacts, constant noise, and a navigational hazard to fishermen and boaters. The appellants state that the project area, particularly the area at the mouth of the Kennebec River, is heavily used by recreational boaters and fishermen.

1. Visual Impacts. To evaluate potential impacts to scenic and aesthetic uses, the applicant completed and submitted the Department's Visual Evaluation Field Survey Checklist. The survey documented that dredging and disposal will take place within one quarter of a mile from several locations visited by the public, including a State Park, public open spaces, and a structure listed on the National Register of Historic Places.

Dredging operations follow a cyclical pattern. The hopper dredge fills an attendant barge, after which the barge travels to the disposal site, dumps its load, and returns. While the hopper dredge remains in place for the duration of the dredge, a barge will not be at any one place (barring work stoppage for entrainment or equipment malfunction) for more than one or two hours at a time.

Given this, and the relatively short duration of the dredging project, estimated to be four weeks or less and spread over two separate work and disposal sites, the Board finds that the operation of the hopper dredge and barges will not unreasonably diminish the public enjoyment of existing scenic resources and appreciation of the qualities of the scenic resources along the Lower Kennebec River.

2. Noise. The appellants argue that the Lower Kennebec River is used most heavily for recreation and its scenic character during the summer months, and that noise from dredging operations will disrupt tourists from enjoying the area and result in a decline in the tourism industry. The identified sources of noise during dredging operations include the hopper's suction pumps and the discharge of dredged material from the barge.

During the daylight hours, noise generated by the hopper dredge will become part of the ambient noise generated by other passing boats. During nighttime operations, the noise will be more apparent; however, given the transient nature of the dredging operation outlined above and the short duration of the dredging project, nighttime noise will not result in an unreasonable impact to existing scenic, aesthetic, or recreational uses along the Lower Kennebec River.

Based on the evidence in the record and for all the above reasons, the Board finds that the proposed project will not have an unreasonable adverse effect on the scenic character of the surrounding area or will not generate excessive operational noise.

3. Navigational Hazard. The appellants' concern with damage to fishing gear and potential hazards to recreational fishermen and boaters is addressed by Special Condition #6 of the Order which requires the applicant to clearly mark or designate the dredging areas, disposal areas, and the transportation routes, publish the transportation routes in a newspaper of general circulation in the area adjacent to the disposal sites, and publish in local newspapers the procedure that will be used to respond to inquiries regarding the loss of fishing gear during dredging operations. The route from Doubling Point to the Bluff Head Disposal Site will follow the federal channel. The route from North Sugarloaf Island to the Jackknife Ledge Disposal Site will follow the commercially travelled route used in previous dredge events. Therefore, for the limited period of dredging operations, both recreational and commercial fisherman will have advance notice of dredge operations.

Special Condition #6 also serves to ensure that the transportation route minimizes adverse impacts on the fishing industry, as required by 38 M.R.S.A. § 480-D(9), which, in part, requires the applicant to demonstrate that the transportation route minimizes adverse impacts on the fishing industry. In comments dated March 10, 2011 and April11, 2011, DMR provided an assessment of the impacts the dredging project would have on the fishing industry, as outlined in 38 M.R.S.A. § 480-D(9). As part of the assessment, DMR held a public meeting in Phippsburg on February 24, 2011 to receive comments on the proposed project.

The Board further finds, based on the proposal to follow established navigational routes and the assessment provided by DMR , that the applicant has demonstrated that the transportation route minimizes adverse impacts on the fishing industry's navigational uses of project areas and that the applicant will be required to mitigate for potential damage to fishing gear and hazards to fishermen.

4. Financial Compensation. The appellants further argue that the Department should require the applicant to provide financial compensation to shellfish harvesters, as recommended by DMR, if the proposed activities result in economic harm to the harvesters. However, the Department's laws do not give it authority to require financial compensation to private parties.

Finally, the applicants contend that much of the adverse impact to existing scenic, aesthetic, and recreational uses would be avoided if the dredging operations did not occur in the summer. As noted in the discussion of the Alternatives Analysis in Finding 6.D., the most practicable alternative to meet the stated project need of providing safe passage for the USS SPRUANCE for a September delivery to the Navy is to dredge during the summer. Based on the evidence in the record and for all the above reasons, the Board finds that the applicant has demonstrated that the dredging project will not unreasonably interfere with existing scenic, aesthetic, or recreational uses of the coastal wetland.

B. HARM TO HABITATS AND FISHERIES STANDARD:

The appellants contest the finding that the applicant demonstrated that the dredging project will not unreasonably harm significant wildlife habitat (SWH), estuarine and marine fisheries, and other aquatic life, pursuant to 48 M.R.S.A. § 480-D(3). The appellants assert that because the lower Kennebec River has been identified as critical habitat for the federally-listed endangered species short-nose sturgeon and Gulf of Maine Atlantic salmon (Atlantic salmon), the affected sites in the Kennebec River should be considered SWH as defined in 38 M.R.S.A § 480-B(10). The appellants assert that the Department failed to consider impacts to Atlantic salmon, short-nose sturgeon, and several other migrating anadromous fish species that move through the waters affected by the dredging project. The appellants also assert that the dredging project will result in adverse impacts to commercial harvesting of clams in the lower Kennebec River, the Morse River, and the Sprague River.

1. Significant Wildlife Habitat. The NRPA defines SWH (38 M.R.S.A § 480-B(10)) as specific "areas" to the extent that they have been mapped by the Department of Inland Fisheries and Wildlife (MDIFW) or are within any other protected natural resource. These "areas" are defined to include habitat for species appearing on the official state or federal list of endangered or threatened animal species, critical spawning and nursery areas for Atlantic salmon, and other habitats. However, in order to meet the definition of SWH, critical spawning and nursery areas for Atlantic salmon must be defined by the Atlantic Salmon Commission, and all of the other habitat areas must be defined by MDIFW. MDIFW definitions of these habitats are found in *Fish and Wildlife - General* 09 137 CMR 10.02, and MDIFW has to date not adopted any definition for habitat for species appearing on the official state or federal list of endangered or threatened species. The Atlantic Salmon Commission was eliminated approximately four years ago. The Bureau of Sea Run Fisheries at DMR is responsible, in part, for the protection and enhancement of Atlantic salmon and its habitat. A definition for critical spawning and nursery areas for Atlantic salmon has not been adopted into statute.

The Board finds that without the legislatively required adoption of definitions of habitat for Atlantic salmon or short-nose sturgeon, the sites affected by the dredging project on the lower Kennebec River do not meet the statutory criteria of SWH in the NRPA for these fish species. Therefore, there is no SWH as defined in the NRPA, and for which the Board would have regulatory jurisdiction, associated with the two dredge sites or with the two disposal sites.

For these reasons, the Board finds that the applicant has demonstrated that disposal of dredged material will not unreasonably harm SWH.

2. Estuarine and Marine Fisheries. The fishery issues of particular concern to the appellants are potential impacts to Atlantic salmon and short-nose sturgeon.

a) Atlantic Salmon. The appellants state that Atlantic salmon are listed as endangered species, that they migrate through the project area, and that the Kennebec

River Estuary has been identified as critical habitat by DMR and the National Marine Fisheries Service (NMFS).

During the February 8, 2011 pre-application meeting between the applicant, the Department, and members of other State Agencies, the applicant acknowledged, and DMR confirmed, that Atlantic salmon migrate through the waters affected by the dredging project. The appellants submitted comments stating that Atlantic salmon are listed as endangered species and that they migrate through the project area. In its response to the appeals, the applicant states that it has contacted NMFS and requested a Biological Opinion be drafted for the dredging project because Atlantic salmon and short-nose sturgeon are listed as endangered species. A Biological Opinion documents NMFS' opinion as to whether a federal activity is likely to jeopardize the continued existence of an Endangered Species Act-listed species, or result in the destruction or adverse modification of species' critical habitat. The requested Biological Opinion for the project has not been completed and thus is not available for consideration here.

NMFS issued a Biological Opinion, dated November 4, 2009, for BIW's ten-year permit to perform maintenance dredging of its sinking basin as part of its land level transfer facility. This document was referenced in the application and by the appellants. In that Biological Opinion, NMFS states that individual Atlantic salmon would only be exposed to the effects of dredging if dredging occurred between April 10 - May 31 or October 1 - November 7. The dredging project is scheduled for the month of August, which is outside of the window identified by NMFS where impacts to salmon would be expected to occur.

In its response to the appeals, the applicant states that fish passage is not expected to be impeded because of the size of the river and because of the grain size of the dredged material, specifically, that sand sized particles, which make up more than 95% of the dredged material are expected to settle quickly to the river bottom.

Included with the draft EA were grain-size analyses from several locations within both dredge sites. The Particle Size Analysis (ASTM D422-63) determined that samples taken at both locations were composed of 98-99% sand. The Unified Soil Classification System identified the samples as medium to fine-grained, poorly-sorted sands. Only one sample contained greater than one percent silt/clay. Sand sized particles are expected to settle to the river bottom, while the finer-grained silt/clay particles are expected to remain suspended in the water column. It is the finer-grained silt/clay particles that would create a turbid looking discharge and would have the greatest impact to fish and clam flats.

The applicant further states that, with the exception of sturgeon species, anadromous and catadromous fish species are expected to avoid the dredging operations and that, due to the timing of the dredging project, it is unlikely that spawning or juveniles of anadromous fish, including Atlantic salmon, would be impacted. In its comments filed on the appeals, BIW argues that the Department's finding that the dredging project

will not unreasonably harm any estuarine or marine fisheries, without specific mention of Atlantic salmon is consistent with the level of concern expressed by the State and Federal fisheries agencies.

The Board notes that Atlantic salmon are not listed as an endangered species under Maine's Endangered Species Act, but are listed as endangered under the federal Endangered Species Act. The record reflects that the applicant has initiated contact with NMFS to ensure the dredging project will comply with the federal Endangered Species Act.

Based upon the evidence in the record and for all the above reasons, including the timing of the proposed dredge, the Board finds that the applicant has demonstrated that dredging project will not unreasonably harm Atlantic salmon.

b) Short-nose Sturgeon. The appellants state that short-nose sturgeon are listed as endangered species, that they are known to be present throughout the project area, that previous dredge events resulted in takings of short-nose sturgeon, and that reports indicate that more incidents of entrainment occur with the use of hopper dredges than mechanical dredges.

During the review period, the applicant acknowledged and DMR confirmed that short-nose sturgeon are found in the waters affected by the dredging project. The application noted that the last dredging event at Doubling Point (October 2003) resulted in five takes, with three of them presumed lethal. The Biological Opinion issued by NMFS on January 13, 2004 determined that the applicant's October 2003 dredging event affected the population of short-nose sturgeon, but did not jeopardize the population of short-nose sturgeon. In the context of such a Biological Opinion, a take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. NMFS interprets the term "harm" as an act that actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding or sheltering. An incidental take is defined as a take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.

Previous permits for dredging projects issued by the Department in October 1997, November 2000, and March 2002 did not note interactions with short-nose sturgeon from previous dredge events. Previous permits did require that a trained observer be present on board the dredge in order to monitor for the presence and/or taking of short-nose sturgeon, as does Special Condition #5 of the Order.

In its review of this proposed project, DMR recommended tagging up to 50 short-nose sturgeon prior to the start of the project and then monitoring for the presence of these fish during dredging operations. The applicant argued that such a condition would not

be practicable at an estimated cost of more than $30,000. The applicant stated that all mitigation costs would have to be passed to the sponsor of the project, either the U.S. Navy or BIW, and the project had yet to be fully funded. The applicant contended that dredging operations would normally be conducted 24 hours a day and it would not be practicable for dredging operations to stop when an acoustic receiver detected the presence of a tagged fish in the area.

The draft EA states that the use of a hopper dredge is more efficient than mechanical dredges, even though incidents of sturgeon entrainment are greater using hopper dredges. As noted in the Alternatives Analysis in Finding 6.D., given the time constraints of providing safe passage by September 1, 2011, as stated in the project need, the use of a hopper dredge was selected by the applicant over a mechanical dredge. The draft EA also notes that mortality of sturgeon taken by the dredge operations could be reduced by the removal of the protective screens on the intake, since during the previous dredge event, two of the short-nose sturgeon that had been entrained after the screens were removed were released with only minor injuries.

The NMFS 2009 Biological Assessment states that summer foraging areas for sturgeon have been identified in the Sasanoa River, which is located upstream of the project site, and the mainstem of the Kennebec River. Between June and September sturgeon forage in shallow waters on mud flats with rooted aquatic plants. The dredge and disposal sites are located in deep water, not shallow mud flats. The 2009 Biological Assessment NMFS estimates that approximately 9,500 adult short-nose sturgeon and an unknown number of juveniles are in the Kennebec River. They go on to state the short-nose sturgeon population in the Kennebec River is increasing.

The Board notes that short-nose sturgeon are not listed as an endangered species under Maine's Endangered Species Act, but are listed as endangered under the federal Endangered Species Act. As such, the federal government has jurisdiction to review and approve or deny a limited "taking" of this species. Specifically, the applicant has requested, and its request is pending, an Incidental Take Statement from the National Marine Fisheries Service, and if a number of incidental takes is approved, the applicant may not exceed that number under that federal approval.

Factoring in to this analysis the extra protection for the sturgeon provided by the federal regulatory review process, the Board has weighed the severity of the impact to sturgeon with the approximate number of sturgeon in the Kennebec River, the short time frame of the dredging project, the location of the dredge and disposal sites in the deeper areas of the mainstem as opposed to the shallow mudflat areas, potential reduction in impacts to sturgeon with the removal of the screen from the dredge the intake, and the practical constraints of other methods given the need for the dredge and timing issues. The Board concurs with the Department's decision not to require the applicant to tag short-nose sturgeon and finds that the applicant has demonstrated that the dredging project will not unreasonably harm short-nose sturgeon.

c) Other Estuarine and Marine Fisheries. The appellants state that other estuarine and marine fish species such as Atlantic cod, pollock, whiting, and several species of flounder, use the Kennebec estuary and require the same level of analysis as is required for Atlantic salmon and short-nose sturgeon. The appellants argue that the Department failed to consider impacts to these fisheries.

The draft EA stated that several other species of fish, including Atlantic cod, pollock, whiting, and several species of flounder, use the Kennebec River estuary at some point during their lifecycles, but concluded that the proposed dredging and disposal activities are not expected to impede the passage of fish migrating up and down the Kennebec River due to the time and duration of the dredging project, the width of the river, and because of the greatest component of the dredged material, sand-sized particles, will settle quickly to the bottom.

The 2009 Biological Assessment states that studies of the effects of turbid waters on fish suggest that concentrations of suspended solids can reach thousands of milligrams per liter before an acute toxic reaction is expected. Because of the limited amount of silt/clay sized material to be dredged and the short duration of dredging and disposal activities, turbidity in the river is not expected to adversely impact these fisheries. Water quality studies conducted by Normandeau Associates in 1997 and 2001 indicate that the lower Kennebec River is a naturally turbid area with naturally occurring fluctuations in turbidity. In 2001, Normandeau Associates monitored water quality during dredging operations at BIW. The maximum observed total suspended solids (TSS) levels during and after dredging was 55 mglL 50 feet from the dredge.

DMR concurred with the Normandeau report in that in comments dated March 10, 2011, it stated that potential adverse impacts to recreational fishing would not be significant.

Based on the evidence in the record, including the timing of the dredging project, the short duration of the dredging project, and the limited duration of turbidity at levels that could pose an impact, the Board finds that the applicant demonstrated that the dredging project will not unreasonably harm other estuarine and marine fisheries.

3. Clam Flats. The appellants contest the Department's conclusion that the dredging project will not result in adverse impacts to commercial harvesting of clams in the lower Kennebec River, the Morse River, and the Sprague River.

Area shellfish harvesters presented oral and written comments stating that disposal of dredge spoils results in siltation of downstream clam flats. In the application process for the 1997 dredge event, shellfish harvesters also made this assertion. In its comments on this issue in 1997, DMR recommended, and Department Order #L-16281-4E-B-N required, a turbidity study. Data from the report document no turbidity levels above 12 nephelometric turbidity units (NTUs).

In the proceeding on the application for approval the 2000 dredge, the next dredging event following the 1997 application, DMR noted that no significant siltation concerns were raised by shellfish harvesters during a public meeting on that application. In fact, Department Order #L-16281-4E-C-N, approving the dredging in 2000, states that Phippsburg shellfish harvesters commented that no adverse impacts to shellfish areas south of the Bluff Head Disposal Site were observed during or after the 1997 dredge event. While the appellants claim that the disposal of dredged material will result in siltation that is detrimental to the clam flats, the record does not reflect that previous disposal has affected the clam flats. The appeal submitted by the Town of Phippsburg, et al., acknowledges that the flats change daily with the tide, river levels, rain events, currents, and other natural causes.

Comments from DMR, dated March 10, 2011, noted the concerns raised by area shellfish harvesters at the February 24, 2011 public meeting. However, based on the previous studies and its experience, DMR concluded that potential adverse impacts from siltation from this dredging project would not be significant.

The Maine Geological Survey (MGS) commented that fine-grained sediment (silts and clays) would not settle quickly but would be carried by tidal and river currents to intertidal and subtidal depositional sites upstream and downstream of the disposal sites. MGS noted that it is not possible to quantify and predict transient water quality impacts, nor is it possible to identify specific areas that may become silted as a result of the proposed project.

The appellants argue that the dredging project will resuspend coliform bacteria that may result in the clam flats being closed to commercial harvesting. The Board's discussion and finding regarding this issue can be found in Finding 6(C)(3).

The appellants claim that the disposal of dredged material will result in siltation that is detrimental to the clam flats, but provided no information documenting that previous disposal has affected the clam flats or how long the clam flats might be affected. The appeal submitted by the Town of Phippsburg, et al., states that the flats change daily with each tide river levels, rain events, currents, and other natural causes.

Based on the evidence in the record, including DMR's comments and experience, data from previous dredges, and comments from MGS, and for all of the above reasons, the Board finds that the dredging project will not unreasonably harm clams and clam flats.

C. LOWER WATER QUALITY STANDARD:

The appellants contest the finding that the applicant demonstrated that the dredging project will not violate any state water quality law, including those governing the classification of the State's waters, pursuant to 38 M.R.S.A. § 480-D(5).

1. Applicable Water Quality Standards

a) Classification. The estuarine and marine receiving waters that are or may be affected by the dredging project are currently classified as follows:

Class SA –

Offshore waters in Phippsburg east of longitude 69°-50'-05'' W. and west of longitude 69'-47'-00'' W., including the tidal waters of the Morse River and the Sprague River (Popham Beach area). 38 M.R.S.A. § 469(5)(B)(1).

Tidal waters of the Kennebec River, main stem, in Phippsburg within 500 feet of shore, beginning at a point of land at the head of Atkins Bay located at longitude 69°-48'-14" W. and latitude 43°-44'-40.4" N. and extending along the southeast shore of Atkins Bay to a point 500 feet off Fort Popham located at longitude 69°-47'-00" W. and latitude 43°-45'-23.89" N. (north side of the Popham Beach area). 38 M.R.S.A. § 469(5)(B)(3).

Class SB –

Offshore waters in Phippsburg and Georgetown except for the Popham Beach and Reid State Park areas as described above and in statute. 38 M.R.S.A. § 469(5).

Tidal waters of the Kennebec River, main stem, in Phippsburg, Georgetown, Arrowsic, and Bath from the mouth of the river to the head of tide in Bath, except for the 500 foot wide strip of water on the north side of the Popham Beach area as described above and in statute. 38 M.R.S.A. § 469(5) and (5)(B).

b) Designated Uses. Class SA and Class SB waters must be of such quality that they are suitable for the designated uses of recreation in and on the water; fishing; aquaculture; propagation and harvesting of shellfish; navigation; and as habitat for fish and other estuarine and marine life. 38 M.R.S.A. Section 465-B(1)(A) and (2)(A). The designated uses of Class SB waters also include industrial process and cooling water supply and hydroelectric power generation. 38 M.R.S.A. § 465-B(2)(A).

c) Class SA Narrative Standards. The estuarine and marine life, dissolved oxygen, and bacteria content of Class SA waters shall be as naturally occur. There may be no direct discharge of pollutants to Class SA waters [with certain exceptions not relevant here]. 38 M.R.S.A. § 465-A(1)(B) and (C).

d) Class SB Numeric Standards. The dissolved oxygen content of Class SB waters shall be not less than 85% of saturation. Between May 15 and September 30, the numbers of enterococcus bacteria of human and domestic animal origin in these

waters may not exceed a geometric mean of 8 per 100 milliliters or an instantaneous level of 54 per 100 milliliters. . . . The number of total coliform bacteria or other specified indicator organisms in samples representative of the waters in shellfish harvesting areas may not exceed the criteria recommended under the National Shellfish Sanitation Program, United States Food and Drug Administration. 38 M.R.S.A. § 465-B(2)(B).

e) Class SB Narrative Standards. Discharges to Class SB waters may not cause adverse impact to estuarine and marine life in that the receiving waters must be of sufficient quality to support all estuarine and marine species indigenous to the receiving water without detrimental changes in the resident biological community. There may be no new discharge to Class SB waters that would cause closure of open shellfish areas by the Department of Marine Resources. 38 M.R.S.A. § 465-B(2)(C).

"Resident biological community" is defined to mean, "aquatic life expected to exist in a habitat which is free from the influence of the discharge of any pollutant. This shall be established by accepted biomonitoring techniques." 38 M.R.S.A. § 466(10).

f) Antidegradation. All waters of the State are subject to the State's antidegradation policy. 38 M.R.S.A. § 464(4)(F).

2. Class SA standards prohibiting direct discharges. 38 M.R.S.A. § 465-B(1)(C).

Bluff Head Disposal Area:

The appellants contend that disposal of dredged material at the Bluff Head Disposal Area is a violation of Class SA water quality standards, as direct discharges are prohibited in Class SA waters. In fact, the Bluff Head Disposal Area is not located in Class SA waters; it is completely within Class SB waters. The classification of this portion of the lower Kennebec River was recently clarified by a correction to an error in the classification laws. P.L. 2011, c. 206, § 11. Therefore, the Board finds that the disposal of dredged material at the Bluff Head Disposal Area does not violate the prohibition on direct discharges to Class A waters.

Jackknife Ledge Disposal Area:

The appellants contend that disposal at the Jackknife Ledge Disposal Site will, because of its proximity to Class SA waters, cause measurable amounts of dredged material to be directly discharged to those Class SA waters, in violation of 38 M.R.S.A § 465-B(1)(C).

The draft EA evaluation of the Jackknife Ledge Disposal Site states that it is composed of shifting sands in an area subject to strong wave influence. Wave and current action transport the sandy sediment easterly along the beachfront of Popham Beach into the

Kennebec River. The river's ebb delta then brings the sand back seaward, creating a sediment gyre. The benthic community is represented by pioneering organisms found in colonization stages on disturbed substrates. The draft EA states that this type of community will quickly recolonize any disturbed area if the grain size after disturbance is not excessively different.

MGS notes that the that material from North Sugarloaf Island reach is consistent with the sandy sediment found in the Jackknife Ledge disposal site, and sand placed there will remain part of the Popham Beach system. While 38 M.R.S.A § 465-B(1)(C) prohibits the direct discharge of pollutants, the migration of sand from the disposal area into Class SA waters does not constitute a direct discharge. It is at most an indirect migration of sand from the disposal site. Currents in the area of the disposal site are expected to rework sand from North Sugarloaf Island Reach and disperse material in all directions, with some of this material crossing the line into Class SA designated waters over time.

Based on the information provided, sand from the disposal site is expected to move in a generally easterly direction away from Class SA waters and the dredged material is physically and chemically similar to the bottom sediment in and around the disposal site. In addition, the habitat will maintain its natural state in the sediment gyre.

Based on the evidence in the record and for all the above reasons, the Board finds that the disposal of dredged material to the Jackknife Ledge Disposal Site will not result in a direct discharge to Class SA waters in violation of the prohibition on direct discharges to Class A waters.

3. Class SA habitat and estuarine and marine life standards. 38 M.R.S.A. § 465-B(1)(A) and (B).

The appellants contend that disposal of dredged material at the Bluff Head Disposal Site will result in violations of the Class SA water standards found in 38 M.R.S.A § 465-B(1)(B) because this activity will result in bacteria content higher than naturally occurs. The appellants contend that disposal of dredged material at the Jackknife Ledge Disposal Site will result in violations of the Class SA water standards found in 38 M.R.S.A § 465-B(1)(A) because this activity will result in habitat that can no longer be characterized as free-flowing and natural.

Class SA standards require that the estuarine and marine life, dissolved oxygen, and bacteria content of Class SA waters be as naturally occurs. 38 M.R.S.A. § 465-B(1)(B). In addition, "the habitat must be characterized as free-flowing and natural." 38 M.R.S.A. § 465-B(1)(A).

Because the Bluff Head Disposal Site and its surrounding waters are Class SB waters, appellants' arguments regarding the Class SA bacteria standard are misplaced. A discussion of the disposal of dredged material at this site and its effects on coliform bacteria levels in the surrounding Class SB waters of the river is found in Finding 6(C)(5).

As discussed in Finding 6(C)(2) above, the habitat surrounding the Jackknife Ledge Disposal Site, with its ever shifting sands and currents, is expected to remain in its free-flowing and natural state following the disposal of dredged material, and the organisms that populate disturbed substrates are expected to quickly recolonize the disturbed area. Therefore, the habitat of the bottom substrate in the Class SA water adjacent to the Jackknife Ledge Disposal Site, and the estuarine and marine life in the Class SA water, will continue to be as naturally occurs.

Based on the evidence in the record and for all the above reasons, the Board finds that the disposal of dredged material to the Jackknife Ledge Disposal Site will not violate the Class SA habitat and marine life standards of 38 M.R.S.A § 465-B(1)(B).

4. Class SB habitat and estuarine and marine life standards. 38 M.R.S.A. § 465-B(2)(A) and (C).

The appellants contend that disposal of dredged material at the Bluff Head Disposal Site and the Jackknife Ledge Disposal Site will result in violations of the Class SB water standards found in 38 M.R.S.A § 465-B(2)(A) and (C).

Class SB standards require that the habitat "must be characterized as unimpaired" and that discharges to Class SB waters may not cause adverse impact to estuarine and marine life in that the receiving waters must be of sufficient quality to support all estuarine and marine species indigenous to the receiving water without detrimental changes in the resident biological community. 38 M.R.S.A. § 465-B(2)(A) and (C). "Unimpaired," as defined, means "without a diminished capacity to support aquatic life." 38 M.R.S.A. § 466(11). "Without detrimental changes in the resident biological community" means no significant loss of species or excessive dominance by any species or group of species attributable to human activity." 38 M.R.S.A. § 466(12). The habitats of special concern to the applicants are the clam flats below Bluff Head Disposal Site and the lobster grounds in the vicinity of Jackknife Ledge Disposal Site.

Relying on previous dredging events, with the exception of the BIW 2009 event, in which the intertidal area of property adjacent to the Bluff Head Disposal Area became heavily laden with silt-sized material at the time BIW was performing maintenance dredging of its sinking basin, the Department concluded that the disposal of dredged material at either location will not result in violations of the Class SB water standards. The Department relied on evidence that the clam flats downstream of the Bluff Head Disposal Site are open for commercial harvesting and that lobster harvesting around the Jackknife Ledge Disposal Site remains highly productive after several episodes of disposal of dredged material by the applicant and BIW.

Based on the evidence in the record and for all the above reasons, the Board finds that the

disposal of dredged material at the Bluff Head Disposal Site and the Jackknife Ledge Disposal Site will not violate the Class SB habitat and estuarine and marine life standards of 38 M.R.S.A § 465-B(2)(A) and (C).

5. Class SB bacteria and shellfish harvesting standards. 38 M.R.S.A. § 465-B(2)(B) and (C).

The appellants contend that disposal of dredged material at the Bluff Head Disposal Site will result in violations of the Class SB bacteria and shellfish harvesting standards found in 38 M.R.S.A § 465-B(2)(B) and (C). Specifically, the appellants argue that the discharge will result in violations of total coliform bacteria or other specified indicator organisms in samples representative of the waters in shellfish harvesting areas that exceed the criteria recommended under the National Shellfish Sanitation Program (NSSP), United States Food and Drug Administration, and result in closure of clam flats by the DMR.

During the licensing process, the appellants raised concerns about possible closure of the clam flats but did not submit evidence that that has been the result of prior dredges to support their contention.

The application included a study conducted in November 1997 that concluded dredging in Doubling Point and disposal at Bluff Head Disposal Site did not result in elevated counts of fecal coliform bacteria downstream of these two sites. An examination of the data set reveals that only one sample was at a level high enough to warrant review under the NSSP. The location where the sample was taken is more than two miles upstream of the clam flats at Drummore Bay and more than four miles from the clam flats at Parker Flats. Back River converges with the Kennebec River at Parker Flats. After allowing for dilution and dispersion, it would be difficult to document that dredging and/or disposal upstream of the clam flats was the single contributor of coliform bacteria at levels high enough to require closure of the clam flats downstream of Back River.

During the review process, this issue was discussed with staff from DMR. Because there is no clear evidence to indicate whether in-river disposal will or will not be responsible for raising bacteria levels that would necessitate closure of downstream clam flats, DMR, in its April 11, 2011 comments, volunteered to perform sampling of the river downstream of the disposal site to ascertain whether bacteria levels become elevated to the point where the National Shellfish Sanitation Program would require closure of the clam flats.

The appellants further contest that the Order contains no provisions to stop dredging operations in the event that river sampling indicates the need to close the clam flats. Such a provision is not warranted. Given the composition of the dredged material, primarily sand, it is unlikely that contaminants such as fecal coliform bacteria will adhere to individual sand grains. Therefore, increased concentrations of fecal coliform bacteria at the clam flats at levels warranting action under the NSSB, due resulting solely from dredging operations, is not expected.

Based on the evidence in the record and for all the above reasons, the Board finds that disposal of dredged material at the Bluff Head Disposal Site will not result in violations of the Class SB bacteria and shellfish harvesting standards of 38 M.R.S.A § 465-B(2)(B) and (C).

Antidegradation Policy. 38 M.R.S.A. § 464(4)(F).

The appellants object generally to the impact of the dredging project on existing uses of the affected waters.

The State's water quality standards include an antidegradation policy found at 38 M.R.S.A. § 464(4)(F). This policy provides that that existing uses and the level of water quality necessary to protect those existing uses must be maintained and protected. 38 M.R.S.A. § 464(4)(F)(1). In addition, the existing water quality of outstanding national resource waters such as Class SA waters must be maintained and protected. 38 M.R.S.A. § 464(4)(F)(2).

The State may not issue a Water Quality Certification for the discharge of dredged material unless the applicant demonstrates that the proposed activity will not have a significant impact on existing estuarine or marine life use and habitat. A significant impact is defined as a "significant impairment to growth and reproduction or an alteration of the habitat which impairs viability of the existing population." 38 M.R.S.A. § 464(4)(F)(1-A)(a). The applicant must also demonstrate that the proposed activity will not result in a significant degradation of recreation, fishing, and commercial harvesting of shellfish and other estuarine and marine species. 38 M.R.S.A. § 464(4)(F)(1-A)(b).

As discussed above, the waters affected by the dredging project are used by fish, clams, lobster and other estuarine and marine life, and as habitat for such populations. They are also used for recreation, fishing, and commercial harvesting of shellfish and other estuarine and marine species. Based on the evidence in the record and for all the reasons discussed in the above Findings, the Board finds that the dredging project will maintain and protect existing uses and the level of water quality necessary to protect those existing uses, will protect the existing water quality of affected SA waters, will not significantly impair the viability of existing population of clams, lobster and other estuarine and marine life, and will not result in a significant degradation of existing recreation, fishing and commercial harvesting of such estuarine and marine species.

D. REVIEW OF PRACTICABLE ALTERNATIVES

In the review of whether the potential impacts of a proposed project are unreasonable, the Department and the Board analyze whether there are any practicable alternatives to the proposed activity that would be less damaging to the environment, in accordance with the Department's *Wetlands and Waterbodies Protection Rules*, Chapter 310 §5(A).

In support of their arguments that the dredging project's impacts are unreasonable and that the applicant did not meet the statutory criteria for approval, the appellants contend that the applicant failed to demonstrate that there are no practicable alternatives that would be less damaging to the environment, specifically to the short-nosed sturgeon, Atlantic salmon, downstream clam flats, and the scenic and aesthetic uses of the site.

An Alternatives Analysis, as set forth in Chapter 310 §9(A), is a report that analyzes whether there is a less environmentally damaging practicable alternative to the proposed alteration which meets the project purpose. "Practicable" is defined in Chapter 310 §3(R) as available and feasible considering cost, existing technology and logistics based on the overall purpose of the project.

The appellants argue that the applicant failed to demonstrate an adequate review of alternatives, in that the assessment of alternatives must include consideration of alternate sites, alternate configurations, and reduced project size and scope. The appellants request that the Board consider all alternatives that may be practicable and for which there is some evidence in the record, including alternative dredging methods (clamshell bucket vs. hopper dredge), reduced scope (minimal dredging instead of overdredging), timing (deferring major dredging activities to winter), and alternate disposal sites (upland, offshore, the Portland Disposal Site).

1) Timing. The appellants argue that late summer dredging of the Kennebec causes more severe and unreasonable impacts to shellfish, marine fisheries, aquatic life, and habitat than dredging during other time periods and is therefore generally not permitted by the Department under the NRPA. They contend that a less damaging alternative exists in a dredging project conducted during the November to April time period. Citing a Department guidance document entitled *Applications to Dredge or to Dispose of Dredged Material in Coastal Waters*, the appellants argue that the timing of a dredging project must coincide with the time of year that will minimize impacts on marine resources, between November 1 and April 15. The Board notes that the guidance document is not a codified requirement and in any case, it states that the November 1 through April 15 time frame is appropriate for most dredging projects.

In support of its application, the applicant submitted a letter from the Navy, dated January 19, 2011, requesting the applicant to initiate immediate action to clear shoaling of the federal channel to support the transit of the U.S.S. SPRUANCE on or about October 1, 2011. In a letter dated January 31, 2011, the Navy sent a correction to the applicant notifying them that the transit date should have been September 1, 2011 not October 1, 2011. Given the short notice, the applicant could not get approvals and contracts in place and conduct operations that would restore the depth of the federal channel in the November to April timeframe typical of previously permitted dredging projects. This time constraint makes the alternative of requiring the applicant to wait until November 1 to dredge impracticable.

Prior to the Department Order #L-16821-4E-D-N, dated March 15, 2002, each dredging event proposed by the applicant received an individual NRPA permit and Water Quality Certification. In its 2002 Order, the Department approved multiple dredging events to be conducted over a ten-year period, provided each event met/meets the conditions of the Order, such as a time-of-year restriction. Because the timing of this dredging project is not consistent with previous dredging events, a new approval under the NRPA and a new Water Quality Certification was sought.

Pursuant to Chapter 310 §5(D), the Board may consider, in its evaluation of the reasonableness of potential impacts, the type of benefit of the project, whether personal, commercial or public. In this case, there is both a public benefit, national security, and a commercial benefit to BIW. Pursuant to Chapter 310 §9(A)(4), the Board may also consider whether the need for the proposed project is public or private. The Board finds that the circumstances of this one-time only activity, the public benefit and nature of the project, and the need for it to be undertaken by September 1, warrant a finding that potential increased effects of a dredge outside of the Department's November to April guidelines are not unreasonable.

2) No-Action Alternative. In the draft EA, the applicant's stated Project Need for this proposed maintenance dredging in the Kennebec River is to provide safe operating depths for deep draft vessels transiting to and from BIW. For this particular dredging activity, the applicant identified the need to provide safe passage for the transit of the U.S.S. SPRUANCE, which is scheduled for deployment on September 1, 2011. This need became evident following a hydrographic survey that identified shoaling conditions in the channel at levels, which will inhibit the safe transit of the vessel. In the Alternatives Analysis section of the EA, the applicant considered the no-action alternative and noted that taking no action to clear the channel would cause a risk of damage to the vessel if it should run aground. The no-action alternative was dismissed by the applicant because it did not meet the Project Need of providing safe operating depths for deep draft vessels. The Board finds the applicant's evaluation of the no action alternative as impracticable to be convincing.

3) No Dredge Alternative. In her comments, appellant Dot Kelly suggested that the applicant should have considered the potential of bar dragging as a viable alternative to dredging. In response to Ms. Kelly's comments, the applicant noted that this practice has been used at other locations, but primarily as a finishing technique when a project is near completion. The applicant contends that this technique would not be a practicable alternative because of the scale of the work required in this case and the nature of the currents in the Kennebec River. The applicant further stated that projects that used dragging resulted in increased levels of turbidity. The Department concurred with the applicant. This conclusion has merit because the physical effort to move sand from a wave crest into a trough would result in disturbance of the river bottom that would re-suspend the silt/clay component of the river sediments. The Board finds credible the applicant's statements with regard to the effectiveness of dragging as compared to dredging and the applicant's statement that a dragging activity would

result in downstream turbidity equivalent to the selected alternative. On these bases, the Board agrees that dragging is not a practicable alternative that would be less damaging to the environment.

4) Minimized Summertime Dredging. The appellants argue that the applicant should consider a less intensive summer dredging project as an alternative. Reducing the depth of the dredging project or the area to be dredged would result in a smaller volume of material that would need to be disposed, reduce the duration of the project, and possibly reduce encounters with sturgeon because of the reduction of the duration of the project. However, the applicant argues that based on its experience with other similar dredging operations, mobilization and demobilization costs can make up a significant portion of the cost of a dredging project, and that for smaller dredging projects a larger percentage of the overall cost is expended on mobilization and demobilization activities. The applicant is required to do a cost-benefit evaluation to determine whether it is feasible to move forward on a federally-funded project. Given the costs and decreasing availability of funding for small dredging projects such as this, reducing the scope of the work to something less than the selected alternative was determined by the applicant not to be a practicable alternative. The Board made underlying factual findings in Finding 6 A, B, and C of this order that the impacts to the resources and to water quality resulting from the selected alternative will be relatively minor. The Board finds that a smaller summer dredge would likely result in the need for another dredge in the near future and the practical issues of cost and doing two smaller, successive dredges instead of one are an appropriate factor for the Board to weigh in its analysis. The Board finds the practicability problems of a smaller, limited dredge significant and credible and thus the Board finds the differences in the environmental impacts between a summer dredge and a winter dredge are not significant enough to find the smaller dredge option a practicable alternative that would be less damaging to the environment.

5) Alternative Dredging Methods. The appellants contend that the applicant may be able to minimize further pollution and impacts to anadromous fish by using mechanical instead of hydraulic dredging. The appellants argue that mechanical dredging has environmental benefits over hopper dredging, including reduced water quality impacts, lower turbidity, and reduced chances of entraining fish.

During the February 8, 2011 pre-application meeting, the applicant outlined the procedures for entering into a contract for the project and determined that the earliest the work could be done would be August 2011. Therefore, with a September 1 launch deadline for the U.S.S. SPRUANCE, and thus just the four weeks of August to complete the dredging project, the applicant determined that the most practicable dredging method is a hopper dredge. The EA explains that the use of a hopper dredge is more efficient than mechanical dredges, such as clamshell and bucket types. The applicant concedes that there are some environmental benefits of the use of mechanical dredges has over hopper dredges; however, given the time constraints of providing safe passage by September 1, 2011, the applicant contends that the use of a

hopper dredge would be significantly more practicable than a mechanical dredge. Based on the stated need for the dredging project to be completed by September 1, and the fact that with a hopper dredge the dredging would take place over a shorter time period than it would using a mechanical dredge, thereby affecting users of the coastal wetland for a shorter time frame, the Board finds the applicant's analysis of the practicability of an alternative dredging method credible and finds it not to be a practicable alternative.

6) Disposal Method. The appellants contend that the applicant must consider upland disposal because upland disposal is not water-dependent and that, by rule (Chapter 310(5)(A)), it is presumptively available and less impactful. The appellants contend that upland disposal provides a beneficial reuse of the dredged material. The appellants further argue that if upland disposal is not a viable method of disposing of dredged material, then the applicant must demonstrate that it is also impracticable to dispose of reduced dredge spoils in an approved offshore location, such as the Portland Disposal Site.

Maintenance dredging of the Kennebec River has been ongoing for more than 20 years. The previously approved method of disposal of dredged material from Doubling Point Reach is in-river disposal at the Bluff Head Disposal Site. As is evident from Department Order L-16281-4E-D-N, dated March 15, 2002, MGS has reviewed maintenance dredging projects in the Kennebec River for both the applicant and BIW and it favors in-river disposal of sand at Bluff Head because it keeps the sand within the riverine system, which eventually empties onto Popham Beach.

The previously approved method of disposal of dredged material from North Sugarloaf Island Reach is open ocean disposal near Jackknife Ledge. In its comments on this proposed dredge and disposal, MGS noted that the bottom sediments from the North Sugarloaf Island dredge site are nearly identical to those of the Jackknife Ledge disposal site, and that sand placed at the Jackknife Ledge disposal site will remain within a sediment gyre, as noted in comments submitted by the appellants, that feeds the Popham Beach system. The sediment gyre is the clockwise movement of sand between Fox Island and Wood Island that has been documented as a factor that influences accretion and erosion of the beachfront extending from the Morse River east to the end of Hunnewell Beach.

MGS has concluded that keeping the dredged material, sand, in the system is beneficial to the system as a whole. Removing sand through upland disposal could possibly affect the sand budget for the Popham Beach system. For this location, open ocean disposal provides the best beneficial reuse of dredged material.

The applicant contends that upland disposal of dredged materials is typically several times more costly than in-river or open ocean disposal because of the additional handling and transportation requirements. This contention is consistent with the Department's experience with other similar dredging operations. Disposal of dredged

material at the Portland Disposal Site was not considered a practicable alternative by the applicant because of the additional costs of fuel and time of travel.

The Board concurs with the MGS recommendation that dredged material remain in the system. Based on this factor and the additional costs associated with upland disposal or disposal to the Portland Disposal Site, the Board finds that the selected disposal method is the most practicable alternative for disposing of dredged material from the dredging project.

Based on the evidence in the record and for the reasons stated above, and in light of the extent of the impacts from the proposed project, the Board finds that the applicant adequately demonstrated that there are no practicable alternatives to the proposed project that would be less damaging to the environment.

E. WATER QUALITY CERTIFICATION

The proposed dredging project qualifies as an "activity...which may result in (a) discharge into the navigable waters" pursuant to the Clean Water Act (CWA), 33 USC 1251 et seq. Section 401 of the CWA requires that any applicant for a federal license or permit to conduct such an activity obtain a certification that the activity will comply with applicable State water quality standards. Normally the discharge of dredged or fill material into a navigable water requires a permit from the U.S. Army Corp of Engineers under Section 404 of the CWA. In this case, the applicant does not apply to itself for a permit. Rather, it authorizes its own dredging projects by applying all applicable substantive legal requirements, including Section 404(b)(1) guidelines, and is required to seek state water quality certification under Section 401 for the disposal of dredged material into navigable waters. 33 C.F.R. § 336.1(a) and (b)(8).

State law authorizes the Department to issue a water quality certification pursuant to Section 401 of the CWA when the standards of classification of the water body and the State's antidegradation policy are met. 38 MRSA Section 464(4)(F)(3).

The Department has been designated by the Governor of the State as the certifying agency for issuance of Section 401 water quality certification for all activities in the state not subject to Land Use Regulation Commission permitting and review. The proposed dredging project is located in organized municipalities that are not subject to the Land Use Regulation Commission's regulatory jurisdiction.

The applicable water quality standards are discussed at length in Finding 6(C). As discussed in that Finding, the discharge of dredged material to the Bluff Head disposal Site and the Jackknife Ledge Disposal Site will not violate applicable state water quality standards, including the State's antidegradation policy. Based on the evidence in the record and for the reasons stated in that Finding, the Board finds that there is a reasonable assurance that the disposal of dredged material into the navigable waters at the two

specified disposal sites will be conducted in a manner that will not violate applicable water quality standards of the State.

The appellants argue that issuance of the Water Quality Certification is in violation of other provisions of the CWA. The appellants assert that the discharge of dredged material is subject to Section 301of the CWA, which addresses effluent limitations to discharges, and is therefore subject to additional provisions of Section 404 of the CWA.

This argument is misplaced. Effluent limitations are not applicable to the discharge of dredged or fill material. The discharge of dredged or fill material is subject to Section 404, not Section 301. As noted above, Section 404 review is the responsibility of the U. S. Army Corps of Engineers, not the Department. A Section 401 Water Quality Certification is intended to document that the discharge of dredged material will not violate the State's water quality standards. The Board finds that the Order meets the requirements of a state-issued Water Quality Certification, as stipulated in Section 401 of the CWA.

Based on the above findings, and the findings and conclusions of the Order under appeal, which are hereby incorporated by reference, the Board concludes that:

1. The appellants filed a timely appeal.

2. The applicant's proposal to perform maintenance dredging of the federal channel of the Kennebec River in the City of Bath, the Town of Arrowsic, and the Town of Phippsburg meets the criteria for an Natural Resources Protection Act permit pursuant to 38 MRSA § 480-D and a Water Quality Certification pursuant to Section 401 of the Federal Water Pollution Control Act.

THEREFORE, the Board AFFIRMS the Department Order #L-16821-4E-E-N, dated April 15, 2011, approving the application of the U.S. ARMY CORPS OF ENGINEERS to perform maintenance dredging of the federal channel of the Kennebec River in the City of Bath, the Town of Arrowsic, and the Town of Phippsburg. The Board DENIES the appeal of the Town of Phippsburg, the Phippsburg Shellfish Conservation Commission, the Phippsburg Land Trust, the Kennebec Estuary Land Trust, the Friends of Merrymeeting Bay, Bob Cummings, Lawrence Pye, Dean Doyle, Dot Kelly, Captain Ethan DeBery, Laura Sewall, Douglas Watts, and Ed Friedman.

DONE AND DATED AT AUGUSTA, MAINE, THIS_____ DAY OF _____, 2011.

BOARD OF ENVIRONMENTAL PROTECTION

By: _____
Susan M. Lessard, Chair